NOAA Cloudwise

There are ten basic cloud types arranged in three divisions based on the altitude at which they form. Low level clouds are Cumulus, Stratocumulus, Stratus, and Stratocumulus. Middle level clouds are Altocumulus and Nimbostratus. High level clouds are Cirrus, Cirrocumulus and Cirrostratus. Precipitation primarily occurs from Cumulus, Cirrocumulus and Nimbostratus.

These ten clouds are further divided into 27 classifications. Many of these classifications represent the same basic cloud type (or combinations of clouds) but in various stages of development, opacity, or sky cover:

Learn more about clouds at www.weather.gov/jetstream
Be weatherwise wherever you are

North of the warm front

NOAA Weatherwise

Strong winds from the high-pressure system carry colder, drier air into the dark blue area. As the cold front approaches, the temperature may drop significantly. There can be hazardous weather anywhere, at any time. Begin planning now. Check for the latest conditions.

Possible impacts

Hazardous weather can result in a variety of hazards including slick roads and power outages. Strong winds can cause damage to buildings and structures. In mountainous areas, lightning from thunderstorms with little or no rainfall can ignite wildfires. These fires may spread rapidly when driven by strong winds associated with the thunderstorm.

Weather safety

Never depend on others to evacuate you. Know your evacuation route(s). Know what to do in an emergency, and have a plan for evacuation. Be prepared to act quickly if needed. For more information, visit https://www.weather.gov/safetycampaign.

Suggested lessons:

- Climate change
- Weather patterns
- Weather forecasting

Explore more weather phenomena at

North of the cool front

High-pressure areas form where cooler air is replaced by warmer air. Air circulates from areas of high pressure to areas of low pressure. These high-pressure areas are regions of stability where the air is relatively clear and the weather is generally calm. In the United States, cold snaps happen when the polar jet stream dips south. Heat waves can occur when the polar jet stream is far north, allowing for warm subsidence to lower temperatures.

Explore the rest of the map.

The location of the jet streams and their seasonal movement drive major weather patterns around the world. In the United States, cold snaps happen when the polar jet stream dips south. Heat waves can occur when the polar jet stream is far north, allowing for warm subsidence to lower temperatures.

The way the air moves affects the weather. Between the large areas of circulating air, jet streams form. The location and strength of jet streams vary from North to South, as well as vertically throughout the atmosphere. For more information, visit https://www.weather.gov/jetstream.

www.weather.gov/jetstream

JetStream - An Online School for Weather